

#### ABSTRACT OF THE DISCLOSURE

A repeatable and uniform low doped layer is formed using modulation doping by forming alternating sub-layers of doped and undoped nitride semiconductor material atop another layer. A Schottky diode is formed of such a low doped nitride semiconductor layer disposed atop a much more highly doped nitride semiconductor layer. The resulting device has both a low on-resistance when the device is forward biased and a high breakdown voltage when the device is reverse biased.

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